Mesa Verde Shock Trial
Booz Allen Hamilton
Maritime Plaza, 1201 M St, SE
Washington, D.C. 2003

Attn: Mr. Don Shaver, Naval Sea Systems Command, NAVSEA 04RE

Subject: Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS), for the Shock Trial of the Mesa Verde (LPD 19)

Dear Sir:

Pursuant to Section 309 of the Clean Air Act and Section 102 (2)(C) of the National Environmental Policy Act, EPA, Region 4 has reviewed the draft EIS which evaluates the environmental consequences of full ship shock trial testing on the Mesa Verde (LPD 19), a new amphibious transport dock ship. Three testing locations were considered: offshore of Naval Station Norfolk, Virginia; offshore of Naval Station Mayport, Florida; and offshore of Naval Air Station Pensacola, Florida. Shock testing is a method whereby a series of underwater explosive charges and a ship are brought closer together. With each detonation the severity of the shock increases. This gradation in severity allows the Navy to fully assess the ship's survivability from shock waves propagated by underwater explosions. Testing explosions will occur at a rate of one detonation per week for three weeks. A fourth detonation may be performed if the first three tests fail to provide technically acceptable data. This sequencing allows time to perform interim detailed inspection of the blast effects on the ship's systems. Because the Navy asserts that computer simulations are not adequate to provide data on survivability of the ship's hull and electronics, live-fire explosions are employed for these assessments. The preferred testing site alternative is Mayport, during spring/summer, 2008.

Potential Impacts on Protected Species – Protected marine mammal species known to occur in the area offshore of Mayport comprise up to 29 marine mammal species, including sperm whale, dwarf and pygmy sperm whale, four species of beaked whale, and 15 species of dolphin and porpoise. While death or injury may occur as a result of the explosive blasts, the Navy anticipates few lethal takes of protected species will occur as a result of these detonations. Model predictions for estimated exposures of marine mammals indicate that the Mayport site may experience, during spring/summer, approximately one mortality, eight physical harassments (injuries), and 498 behavioral harassments. Sea turtles takes during spring/summer were estimated to be up to one mortality, eight physical harassments (injuries), and 498 behavioral harassments. The draft EIS states that injury from exposure to the chemical by-products released into the surface waters is not likely to occur, and no permanent alteration of marine mammal habitat is expected to occur.

Mitigation - The document provided mitigation strategies that would minimize risk to marine mammals and sea turtles. The Navy proposes to (1) conduct pre-detonation aerial

surveys and select a test area within the chosen site location with the lowest number of marine mammals and sea turtles; (2) monitor the area visually before each test and postpone detonation if any marine mammal is detected within a range that has a potential to cause injury; and (3) monitor the area after each test to locate any injured animals. If post-detonation monitoring shows that marine mammals were killed or injured as a result of the test, testing would be halted until procedures for subsequent detonations could be reviewed and changed as necessary. The National Marine Fisheries Service (NMFS) may propose and require additional mitigation through its rulemaking and Endangered Species Act (ESA) consultation process, which are on-going at this time, and should be finalized prior to testing.

Conclusions and Recommendations - EPA concludes that the Navy has used a rational process to select the optimum site and seasons of the year to minimize impacts on protected marine species. With implementation of the proposed monitoring and safety precautions described in the draft EIS, it appears that Mayport is the most favorable for the protection of marine fauna of the three proposed alternative sites. The nature of the testing makes it impossible to avoid some risk to avian/marine species likely to be present within the test area; nonetheless, all reasonable efforts should be made to minimize losses.

EPA understands that protective measures being proposed for the Mesa Verde is modeled after the mitigation plan that was defined in the Final Rule for the USS Winston S. Churchill Final EIS issued by NMFS in 2001, and proved satisfactory in protecting marine mammals and turtles. Post-testing monitoring results could be made available to state and federal natural resource agencies for review and analysis to assess how successful these mitigation measures were. This assessment could also be useful in ascertaining both short- and long-term impacts to biota in test areas in the event the Navy conducts similar trails on other major new vessels in the future.

Thank you for the opportunity to review this document. EPA rates this action EC-1, that is, we have a degree of environmental concern regarding the proposal; however, the document contained sufficient information for our review. If this office can be of further assistance in this matter, John Hamilton (404-562-9617) will serve as initial point of contact.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office

SUMMARY PARAGRAPH:

Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS), for the Shock Trial of the Mesa Verde (LPD 19) CEQ 20070445

The Navy has used a rational process to select the optimum site and seasons of the year to minimize impacts on protected marine species. Of the three proposed alternative sites, the preferred alternative Mayport site appears to be the most favorable for the protection of marine fauna.